Pasture Condition Score Sheet

Client: _____ **Date:** _____

Conservationist: _____ **Pasture Number:** _____ **Acres:** _____

MLRA: _____ **FSG:** _____ **Species:** _____

Measured Production (lbs) _____ **Production Range From FSG (lbs.)** _____

Evaluate site conditions and the present plant community and rate each category based on your observations. Ratings for each category may range from 1 to 5. If rating falls between the listed narratives, select that value. Enter score for each indicator at right.

Indicator	1 Point (Very Poor)	2 Points	3 Points	4 Points	5 Points (Excellent)	Score
1) Percent Desirable Plants (adapted to site, and high production potential)	Desirable species <20% of stand by weight. Annual weeds and/or perenial weedy species dominate.		40 - 60% desirable forage species by weight. Grazing resistant forage species with lower production potential make up a substantial portion of the stand. Undesirable broad-leaf weeds and annual weedy grasses invading.		Desirable species exceed 80% of plant community by weight.	
2) Plant Cover	Very poor stand reletive to FSG. Photosynthetic area very low. Very little desirable plant cover to moderate soil temperatures and slow or stop runoff.		Moderate stand relative to FSG. Moderate leaf area to intercept sunlight and raindrops. Bare areas may be common.		Excellent stand reletive to FSG. Forages maintained in leafy condition for best photosynthetic activity. Very thick stand, slow or no runoff.	
3) Plant Vigor	Plants spindly, with yellowish green leaves. Productivity much below site potential. Little or no regrowth after grazing.		Urine/dung patches dark green in contrast to rest of plants indicating an unfavorable plant nutient status. Yields regularly below site's potential. Moderate regrowth after grazing.		Plants healthy green color. Urine/dung patches only slightly greener than rest of plants. Yields at site potential for species adapted to the site's soil and climate. Rapid regrowth.	
4) Percent Legume	No legumes in cool season pasture or > 60% bloat causing legume by weight.		20 to 30% legume by weight in cool season pasture.		40-50% legume by weight.	
5) Plant Diversity (may be considered across several pastures if they are grazed in rotation)	One forage species or functional group providing a narrow time period when forages are of high nutrative quality.		2 or more forage species from 1 or more functional groups with similar growth periods resulting in low forage quality through a significant portion of the grazing season.		2 or more forage species from two or more functional groups with complimentary growth periods resulting in high forage quality throughout the grazing season.	
6) Uniformity Of Use	Urine and dung spots ungrazed. Remainder of pasture appears to be consistantly grazed below proper stubble heights.		Spot or patch grazing evident across much of the pasture indicating selectivity by grazing animals, **OR** zone grazing wih significant areas lightly or not grazed by livestock.		Rejected areas only at urine and dung patches. No forage species rejection.	
7) Plant Residue	Very little litter present on soil surface to buffer soil temperatures and intercept and retain moisture, **OR** litter present in extreme amounts, reducing tillering and suppressing stand.		Surface litter present in amounts moderately more or less than what would be expected for the site, **AND/OR** excessive standing dead plants reducing forage intake and quality.		Litter present in amounts considered normal for the site and in contact with soil surface.	
8) Erosion (See note below)	Severe wind, sheet and rill, trail, gully, and/or riparian area erosion, active and readily apparent.		Moderate wind, sheet and rill, trail, gully, and/or riparian area erosion evident.		No active erosion visible.	

Note: If erosion scores 3 or less, it becomes the overriding resource concern and must be addressed.

Overall Pasture Condition Score	Indicator Score	Management Change Suggested
35-40	5	No changes in management needed at this time.
15-35	2-4	Improvements would benefit productivity and/or environment.
8-15	1	Major effort required in time, management and expense.

Stocking Rate Calculation

Overall Pasture Condition Score (sum 1 - 8)	
A - Measured Production	
B - Management Intensity 1/	
C - Usable Forage (AxB)	
D - AUM Requirement (lbs)	**790**
E - Est. Stocking Rate (C/D)	

Comments:

INTRODUCTION TO PASTURE CONDITION SCORING

A well-managed pasture is one whose productivity (plant and animal) is optimized while doing no harm to soil, water, and air quality. Pasture condition scoring is a systematic way to check how well a pasture is being managed. A well managed, properly sited pasture will have a good to excellent overall pasture condition score. By rating key indicators common to all pastures we can evaluate pasture condition and identify the primary reasons for a low condition score. Conditions that typically express themselves as pasture resource concerns are poor plant growth, weedy species invasion, poor animal performance, visible soil loss, increased runoff, and impaired water quality. Pasture condition scoring involves the visual evaluation of 8 indicators, listed and described below, which rate pasture condition. In the "Pasture Condition Score Sheet", each indicator has five conditions described for it, ranging from very poor to excellent. This objectively ranks the extent of any problem(s) and helps us sort out the likely cause(s). Evaluate each indicator separately. They may be combined into an overall score for the pasture unit or left as individual scores and compared with the other seven indicators. Indicators receiving the lowest scores can be targeted for corrective action as warranted.

PASTURE CONDITION INDICATOR DESCRIPTIONS

Percent Desirable Plants This indicator determines if the pasture has desirable plant species that are readily consumed, persistent, and provide high tonnage and quality for a significant part of the growing season. Some grazing-resistant intermediate species, such as Kentucky bluegrass, provide high quality forage, but often in amounts considerably less than other adapted species would. They can be an indicator of a less than ideal grazing management history. Undesirable species are those which typically are not eaten (rejected) by most livestock or cause undesirable side effects when eaten, and crowd out more desirable species.

Plant Cover The percentage of the soil surface covered by plants is important for pasture production and soil and water protection. A dense stand (high stem count) ensures, when properly grazed, high animal intake, and high sunlight interception for best forage growth. Bare, open spots allow for weed encroachment, increased water runoff during intense rains, and soil erosion.

Plant Vigor Desirable species should be healthy and growing at their potential for the season when rated. If not, they will be replaced by weeds and low quality forage plants. If plant growth conditions really suffer, bare soil will begin to appear. Some things to consider when rating plant vigor are color, size of plants, rate of regrowth following harvest, and productivity.

Plant Diversity Plant diversity is the number of different forage species and functional groups that are well represented in a pasture grazed season long, or in a set of rotationally grazed pastures. Low species diversity results in unreliable supplies of grazed forage for livestock during the grazing season. Forage production and quality varies more widely through the grazing season due to changing weather and light conditions and insect and disease pressure. Having more than one species from more that 1 functional group (i.e. cool season grass, warm season grass, legume) maintains the most consistent forage supply during the grazing season.

Percent Legume Legumes are important sources of nitrogen for pastures and improve the forage quality of a pasture mix when they comprise at least 20 percent (but less than 60% of bloat causing legumes) of total air-dry weight of forage. Deep-rooted legumes also provide grazing during hot dry periods in mid-summer.

Uniformity of Use Check uniformity of use by observing animal grazing patterns. Uniform grazing results in all desirable and intermediate species being grazed to a similar (and acceptable) height. Spotty or patterned grazing appears uneven throughout a pasture with some plants or parts of paddocks grazed heavily and others lightly. Individual forage species are being selected for or against by the livestock based on their palatability and nutritional value. Selectivity is also affected by forage species' maturity differences, amount of forage available to livestock, and their length of stay in the paddock. Zone grazing occurs when one end of the pasture is heavily grazed and the other end is ungrazed or lightly grazed. Typical causes of zone grazing are distance to water, pasture shape, and pasture terrain.

Plant Residue Plant residue, in various states of decay, provides additional surface cover and organic matter to the soil. However, too much standing dead material in the grass stand reduces the feed value of the forage consumed, reduces animal intake, and inhibits new plant shoot growth. Excessive amounts of standing dead material may cause the forage to be rejected by the grazing animal. Less than 25 percent of the standing forage mass should be dead or dying leaves and stems. A buildup of thatch (mat of undecomposed residue) at the soil surface promotes fungal diseases and retards or prevents shoot and seedling emergence. This results in forage stand decline.

Erosion If soil erosion is occurring in a pasture, it becomes the overriding concern. Erosion increases as ground cover decreases. Evidence of sheet erosion in a pasture appears as small debris dams of plant residue that build up at obstructions or span between obstructions. Some soil aggregates or worm castings may also be washed into these debris dams. Rills are small, incised channels in the soil that run parallel to each other down slope. When rills appear, serious soil loss is occurring. Wind erosion occurs when heavier wind blown soil particles abrade exposed soil and cause dust to become airborne. Deposition of the heavier soil particles occurs downwind of obstructions such as fence lines, buildings, and vegetation. Often vegetative debris will be "windrowed" against obstructions. Pedestaling can indicate either wind or water erosion. Sheet, rill, and wind erosion generally will increase as plant cover (Indicator 2) decreases. Ground cover also affects gully and riparian area erosion because of its effect on runoff. In addition, livestock hoof action may contribute substantially to these conditions.

1/ Grazing Management Intensity.
High (.45) -- High stocking density. Multiple, short duration grazing periods. Optimum beginning and ending grazing heights strictly adheared to.
Medium (.35) -- Moderate stocking density. Grazing period length allows forages to be regrazed during current occupation. Minimum beginning and ending grazing height frequently ignored.
Low (.25) -- Low stocking density. Continious grazing, or occupation periods allow multiple grazing of forages without rest periods. Beginning and ending grazing heights typically ignored.